

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 29763.0116	FOR FURTHER ACTION		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US 99/ 26312	International filing date (day/month/year) 08/11/1999	(Earliest) Priority Date (day/month/year) 13/11/1998	
Applicant HARRINGTON ARTHRITIS RESEARCH CENTER			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.
☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

- ☐ the text is approved as submitted by the applicant.
- ☒ the text has been established by this Authority to read as follows:
METHOD AND APPARATUS FOR INJECTING MATERIAL TO BONES

5. With regard to the abstract,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- ☒ as suggested by the applicant. 6
- ☐ because the applicant failed to suggest a figure. ☐ None of the figures.
- ☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/26312

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B17/86

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 653 489 A (R.G.TRONZO) 31 March 1987 (1987-03-31) column 3, line 61 - column 4, line 39; figures 1-4 column 5, line 30 - line 34	1,4-6,9-15,17
X	PATENT ABSTRACTS OF JAPAN vol. 95, no. 5, 30 June 1995 (1995-06-30) & JP 07 051292 A (Y.KISHIGAMI) abstract; figures	1,4-6,9,10,13-16
X	PATENT ABSTRACTS OF JAPAN vol. 95, no. 11, 26 December 1995 (1995-12-26) & JP 07 222752 A (TERUMO) abstract; figures	1,4-6,9,10,13-15,17
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2000

Date of mailing of the international search report

13/03/2000

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/26312

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE WPI Week 9842 Derwent Publications Ltd., London, GB; Page P31, AN 98-488572 XP002132030 & JP 10 211213 A (MITSUBISHI MATERIALS), 11 August 1998 (1998-08-11) abstract; figures</p>	1,4-6,9, 10,13-15
X	<p>US 5 047 030 A (K.DRAENERT) 10 September 1991 (1991-09-10) cited in the application</p>	9,10, 13-15,19
A	<p>column 2, line 13 - line 16 column 3, line 30 - line 36 column 3, line 53 - line 56 figures 1-2A</p>	1,4-6
A	<p>EP 0 490 517 A (COOK INC. AND UNIVERSITY OF FLORIDA RESEARCH FOUNDATION) 17 June 1992 (1992-06-17) abstract; figures 1,6,8 column 4, line 12 - line 14 column 7, line 5 - line 23</p>	1,5,6,9, 10,13, 14,16,18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/26312

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4653489	A	31-03-1987	CA 1227902 A DE 3508759 A GB 2157177 A,B NL 8500764 A	13-10-1987 10-10-1985 23-10-1985 01-11-1985
JP 07051292	A	28-02-1995	NONE	
JP 07222752	A	22-08-1995	NONE	
JP 10211213	A	11-08-1998	NONE	
US 5047030	A	10-09-1991	AT 124235 T DE 3854067 D DE 3854067 T WO 8806023 A EP 0305417 A JP 1502402 T JP 2935708 B US 5192282 A	15-07-1995 03-08-1995 25-01-1996 25-08-1988 08-03-1989 24-08-1989 16-08-1999 09-03-1993
EP 0490517	A	17-06-1992	AT 133052 T CA 2057540 A DE 69116533 D DE 69116533 T DK 8792 A ES 2087839 A ES 2085441 T GR 91100500 A,B JP 1885787 C JP 4292173 A JP 6006162 B US 5431655 A US 5601559 A US 5484442 A	15-02-1996 14-06-1992 29-02-1996 05-09-1996 23-01-1992 16-07-1996 01-06-1996 23-11-1992 22-11-1994 16-10-1992 26-01-1994 11-07-1995 11-02-1997 16-01-1996

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 99/26312

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 20
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.